

# Paper Rockets

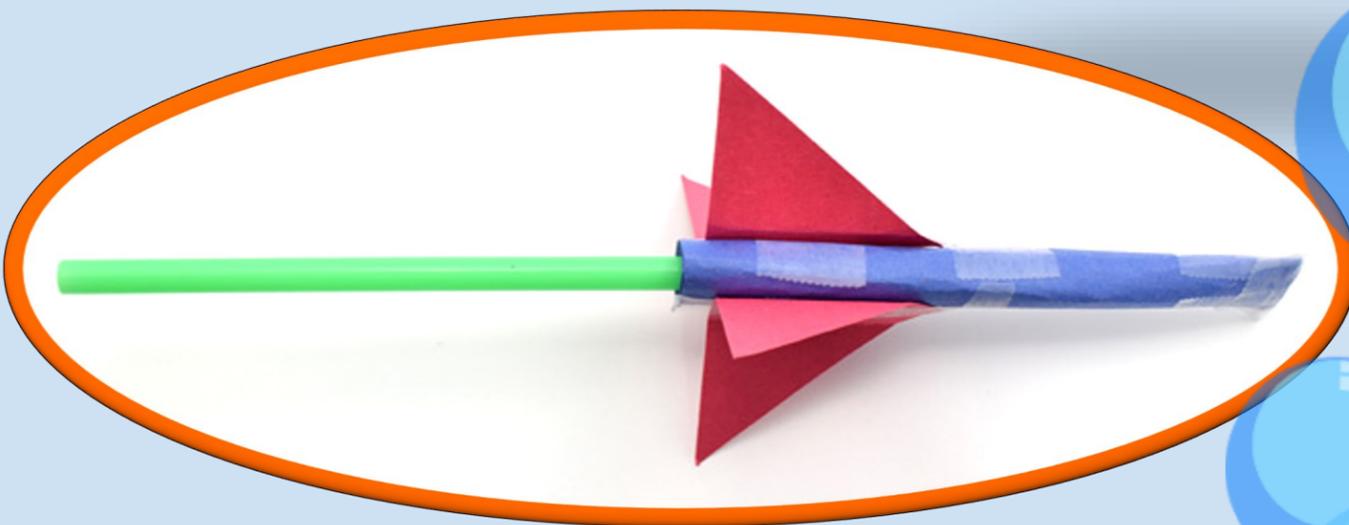
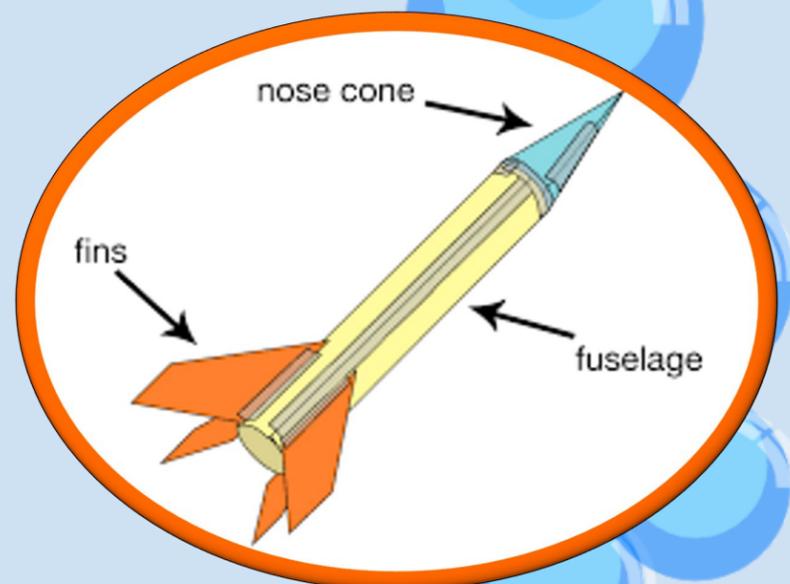
Paper Rockets are a great way to demonstrate how rockets fly through the atmosphere. A rocket with no fins is much more difficult to control than a rocket with fins. The placement and size of the fins is important for achieving stability without adding too much weight. Try to design, construct, and fly paper rockets that will travel the greatest distance across a room.

## Build a Rocket

1. With your ruler and pencil, measure and cut a 2in by 6in strip of paper.
2. Wrap the strip of paper around your pencil, and tape the paper to form a tube.
3. Slide the paper tube off the pencil, and with a second piece of tape, seal one end of the tube so no air can escape.
4. With your remaining paper, draw and cut out fins, then tape your fins to the open end of your paper tube. Fins affect the flight of your rocket, so experiment with different shapes and sizes!
5. Slide your completed rocket onto a straw, then blow through the straw to launch!

## Materials

Pencil  
Ruler  
8.5"x11" Piece of Paper  
Scissors  
Tape  
Straw



## Test it Out!

Engineering is all about design, testing, and redesign to make something better.

1. Launch your rocket 3 times and measure how far it flies.
2. Build a new design to fly farther. Before you test it, predict how far it will fly. What's the difference between your prediction and the results?
3. What do you think were the best elements of each rocket? Combine those into a third rocket, and test it's flight distance again!